

This Page Is Inserted by IFW Operations
and is not a part of the Official Record

BEST AVAILABLE IMAGES

Defective images within this document are accurate representations of the original documents submitted by the applicant.

Defects in the images may include (but are not limited to):

- BLACK BORDERS
- TEXT CUT OFF AT TOP, BOTTOM OR SIDES
- FADED TEXT
- ILLEGIBLE TEXT
- SKEWED/SLANTED IMAGES
- COLORED PHOTOS
- BLACK OR VERY BLACK AND WHITE DARK PHOTOS
- GRAY SCALE DOCUMENTS

IMAGES ARE BEST AVAILABLE COPY.

**As rescanning documents *will not* correct images,
please do not report the images to the
Image Problem Mailbox.**

1,033,994



PATENT SPECIFICATION

DRAWINGS ATTACHED

1,033,994

Inventors: FRED PARKER BIRCH
and MICHAEL MARTIN HAMMERTON

Date of filing Complete Specification: March 18, 1965.

Application Date: April 18, 1964.

No. 16165/64.

Complete Specification Published: June 22, 1966.

© Crown Copyright 1966.

Index at acceptance:—E1 B50

Int. Cl.:—E 04 h 11/40

COMPLETE SPECIFICATION

Ground-Engaging Support for a Post

We, NUNEATON ENGINEERING COMPANY LIMITED, a British Company, of Tuttle Hill, Nuneaton, Warwickshire, do hereby declare the invention, for which we pray that a patent may be granted to us, and the method by which it is to be performed, to be particularly described in and by the following statement:—

The invention relates to a ground-engaging support for a post, and has for its object to provide a firm support for a post of which the thickness lies within a range of dimensions.

According to the invention the support comprises a base having radially-extending ground-engaging fingers and a central socket to receive with at least slight radial clearance the foot of a post to be supported, the wall of the socket being interrupted in circumferentially spaced positions by axially-directed channels of which the respective bottom walls diverge in the upward direction from the axis of the socket, and which are for receiving wedges for holding the post firmly in the socket. The range of thicknesses for the post obviously depends on the extent to which the wedges will extend laterally into the socket when driven home, and this range can be extended by using sets of wedges of different thicknesses. It is preferably arranged that, when driven home, a top portion of each wedge will extend upwardly above the top surface of the said base to facilitate their subsequent withdrawal. For the latter purpose each wedge is preferably provided with a laterally extending abutment at its outer side for engagement by, for example, a lever for facilitating the withdrawal.

Preferably, the base has three of the ground-engaging fingers and the said fingers are spaced 120 deg. apart.

According to a feature of the invention there is one of the wedge-receptive channels centrally of the axis of each finger. In this way the mass of the fingers assists in supporting the force exerted by the associated wedge in holding the post firmly.

[Price 4s. 6d.]

The wall of the socket can be cylindrical, but according to a further feature it diverges conically in the upward direction, preferably at the same angle as the bottom walls of the channels.

According to another feature the wall of the socket, instead of being interrupted in circumferentially spaced positions by single axially-directed channels is interrupted by groups of at least two of the channels, the channels of each group being of different depths and for selective coaction with a single wedge. In this way it is possible to accommodate posts in a large range of thicknesses without having to select different angles for the wedges.

According to yet another feature the outer ends of the fingers are extended laterally whereby to increase the resistance of the base to tipping in a direction bisecting the angle between any two adjacent fingers.

The invention is exemplified by the accompanying drawings, in which:—

Figure 1 is a plan view of one form of the support;

Figure 2 is a section on the line A—A of Figure 1;

Figure 3 is a section on the line B—B of Figure 2;

Figures 4 and 5 are, respectively, a side elevation and plan view of one form of wedge to be used with the support, and

Figures 6 and 7 are views like Figures 1 and 2 but of a modified form of the support.

Referring to Figures 1 to 3 the base of the support is in the form of a casting having three integral fingers 10, 11, 12 which radiate at 120 deg. therefrom and have ground-engaging pads 10a, 11a and 12a at their outer ends.

At its centre the base is formed with a socket 13 which, in the example shown, is cylindrical; and in alignment with the roots of the fingers the socket is formed with three channels. Each of the channels has parallel side walls 14, 15 and the bottom 16 of the channels diverge in the upward direction so as to coat with

50

55

60

65

70

75

80

85

90

wedges, like the one shown in Figures 4 and 5, for holding the post (not shown) firmly in position. When driven home, the tops of the wedges preferably stand proud of the base so as to facilitate their removal.

The wedges shown in the last-mentioned Figures have parallel side walls 17, 18 respectively to have sliding contact with the side walls 15 and 14 of the channels, and an inclined edge 19 to coact with channel wall 16 for urging wedge edge 20 firmly into parallel engagement with the inserted post.

In the construction shown in Figures 6 and 7 each of the channels is substituted by a group of three channels which are of different depths and of which the bottom walls are shown at 16a, 16b and 16c. The socket is made conical at the same angle as the channel bottoms and exists as lands 13a between the groups of channels. In all instances a single wedge is intended to be used with a single channel of each group such that the operative edge of the wedge will be parallel to the axis of the socket, and it will be seen that posts of one range of thicknesses can be held when the wedge engages channel bottom 16a, another range of posts of less thickness can be held when the wedge engages channel bottom 16b, and a third range of posts of still less thickness can be held with the wedge in engagement with channel bottom 16c.

In both constructions the pads 10a, 11a and 12a provide a three-point support to compensate for irregularities of the surface on which the base is to rest, but such an arrangement provides less resistance to tipping in a direction bisecting the angle between two adjacent fingers than against tipping in a direction along the axis of one of the fingers. To increase the resistance to tipping in the first-mentioned direction the said pads can be provided with lateral extensions as indicated in dotted lines at 10b, 11b and 12b in Figure 6. In that Figure the line 21 indicates the tipping axis in the aforesaid first-mentioned direction, and the line 22 indicates the tipping axis when the pads are extended laterally as shown.

WHAT WE CLAIM IS:—

1. A ground-engaging support, for a post, comprising a base having radially-extending ground-engaging fingers and a central socket to receive with at least slight radial clearance the foot of a post to be supported, the wall of the socket being interrupted in circumferentially spaced positions by axially-directed channels of which the respective bottom walls diverge in the upward direction from the axis of the socket, and which are for receiving wedges for holding the post firmly in the socket. 50
2. A support, according to Claim 1, in which the base has three of the ground-engaging fingers and the said fingers are spaced 55 120 deg. apart. 65
3. A support, according to Claim 1 or 2, in which there is one of the wedge-receptive channels centrally of the axis of each finger. 70
4. A support, according to any preceding Claim, in which the wall of the socket diverges conically in the upward direction at the same angle as the bottom walls of the channels. 75
5. A support, according to Claim 1, in which the wall of the socket is interrupted in circumferentially spaced positions by groups of at least two channels, the channels of each group being of different depths and for selective coaction with a single wedge. 80
6. A support, according to any preceding Claim, in which the outer ends of the fingers are extended laterally whereby to increase the resistance of the base to tipping in a direction bisecting the angle between any two adjacent fingers. 85
7. A ground-engaging support, for a post, substantially as described and illustrated by Figure 1 to 5 of the accompanying drawings. 90
8. A ground-engaging support, for a post, substantially as described and illustrated by Figures 6 and 7 of the accompanying drawings.

WALFORD & HARDMAN BROWN,
Chartered Patent Agents,
Roslyn Chambers,
47, Warwick Road, Coventry, Warwickshire.
Agents for the Applicants.

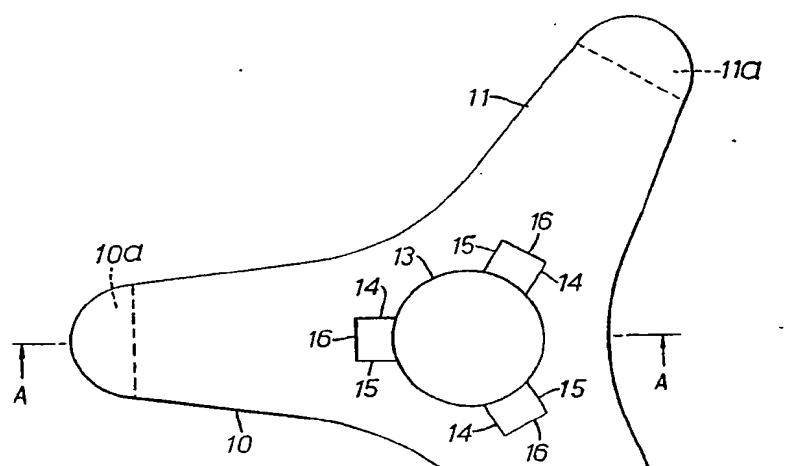


FIG. 1.

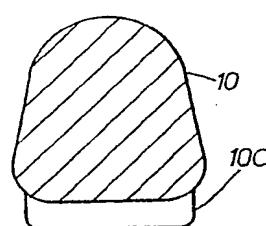


FIG. 3.

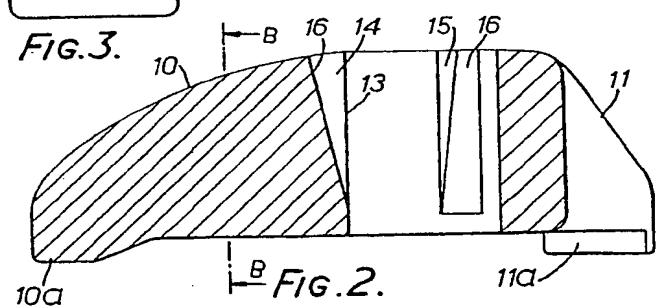


FIG. 2.

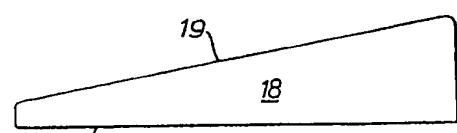


FIG. 4.

1033994
2 SHEETS

COMPLETE SPECIFICATION
*This drawing is a reproduction of
the Original on a reduced scale
Sheets 1 & 2*

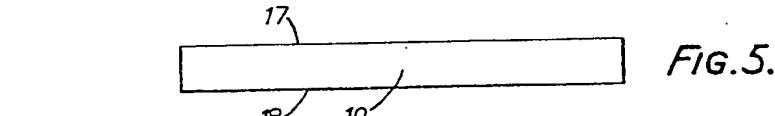
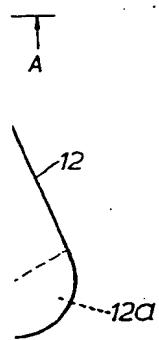
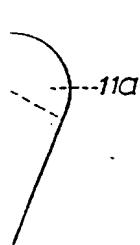


FIG. 5.

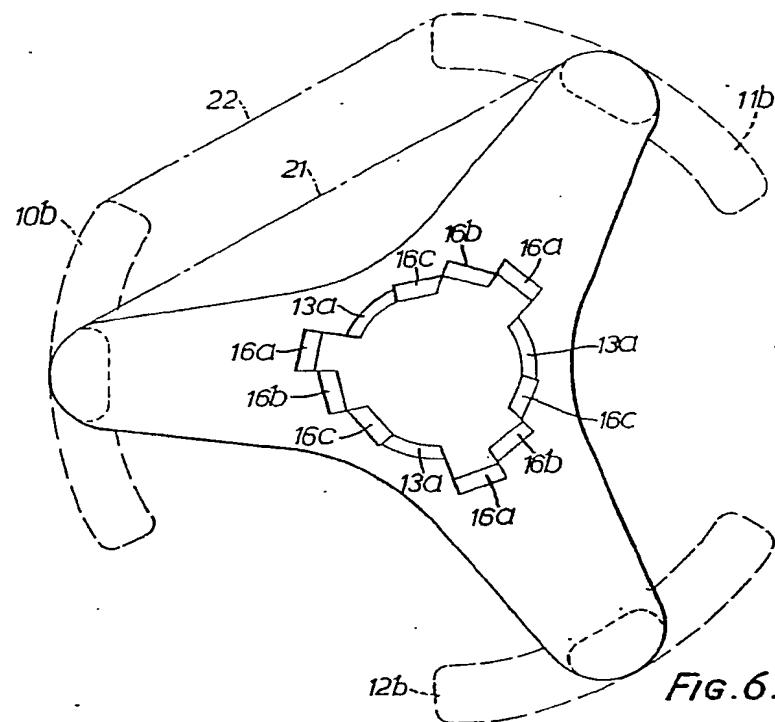


FIG. 6.

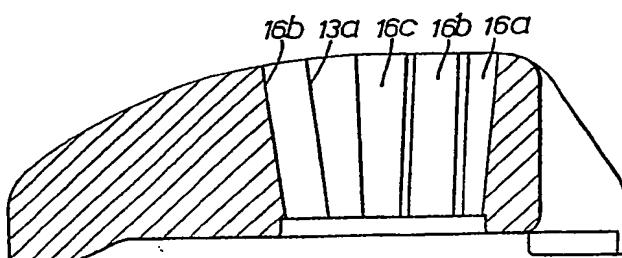


FIG. 7.

1033994 COMPLETE SPECIFICATION
2 SHEETS This drawing is a reproduction of
the Original on a reduced scale.
Sheets 1 & 2

